

DENDRITES.

Very often, on old kerataceous fibre, little, colourless, circular dendritic spots make their appearance whose structure is so minute that even under a compound power of $\frac{1}{4}$ inch with high ocular it does not appear satisfactorily. All that can at present be stated of them is, that they are composed of branched filaments which radiate from a central point; but whether they are algoid or fungoid, or what their real nature is, future observation must determine.

ROT.

Lately several complaints have been made of the rapid washing away of officinal sponges after they have begun to be used; and on microscopical examination of such sponges before and after they have been brought into use, it would appear that while the superficial fibre is all continuous, that within is broken up into short pieces. How and when this occurs I am unable to state, further than that, like dried fish not properly cured, the surface may remain good while the interior becomes broken down by putrefaction; or it may be from some chemical substance used in preparing them for sale, which has not been thoroughly washed out from the interior; but the surface remaining sound in each instance would ensure their sale until the unfortuate purchaser finds out that, after a little usage, they become reduced to nothing, and that the soundness was merely superficial. Perhaps the best test of a sound sponge is the extent to which it expands, and *vice versâ*, after having been filled with water. Those which are broken down in the interior, not having the same amount of resiliency as the rest, will probably vary little in size by the change. (For an excellent account, with illustration, of the mode in which the officinal sponge is obtained in the Levant, see 'Travels and Researches in Crete,' by Captain (now Admiral) T. A. B. Spratt, R.N., C.B., F.R.S., &c., vol. i. chap. xx. p. 215, 1865: Van Voorst.)

XIX.—*Measurements of the Red Blood-corpuscles of the American Manatee (Manatus americanus) and Beluga leucas.*
By GEORGE GULLIVER, B.A., Pemb. Coll. Oxon.

THROUGH the kindness of Mr. Carrington I have been enabled to examine the blood of the American Manatee now in the Royal Aquarium, and have made careful measurements and comparisons of the red corpuscles.

In a paper by my father "On the Sizes and Shapes of the Red Corpuscles of the Blood of Vertebrates," published in the 'Proceedings of the Zoological Society,' June 15, 1875, there occurs the following remark:—"Much larger red blood-corpuscles than those of the human species may be expected in the most gigantic marine Feræ and Cetacea. The largeness of the corpuscles in *Orycteropus* was truly predicted long before they were ever examined; and we may well suppose that they were larger in the huge extinct Edentates than in any existing mammal. It would be interesting and probably instructive to examine the corpuscles of the Sirenia."

Some time back, in a communication to my father, Prof. Garrod stated that he had examined the blood of the individual of this species which died in the Zoological Gardens, and found the corpuscles to be of large size. He has since published measurements of the corpuscles in the Zoological Society's 'Transactions' for Oct. 1, 1877, where he says, "In the Manatee the diameter of the largest corpuscles reaches $\frac{1}{2700}$ of an inch, others being considerably smaller." As an independent confirmation of his observation that the corpuscles of this animal are of a large size, and at the same time an expression of opinion on my father's and my own part that they are considerably larger than he supposes, I venture to think that this observation is not without value.

I have submitted a specimen of the blood to my father, who agrees with me in making the average size of the corpuscles $\frac{1}{2400}$ of an English inch. It is well known that in the same species, and in the same individual of that species, the red corpuscles are found to vary within certain limits; and it is only by careful and constantly repeated observations that the prevailing or mean size can be estimated. It is this size only which is given here.

Whilst I was watching the dissection of the white whale (*Beluga leucas*) which recently died in the aquarium, Dr. Murie was kind enough to provide me with specimens of the blood. Knowing, from my father's measurements of the corpuscles in other species of Cetacea, that they would prove to be large in this animal, it was interesting to obtain a specimen of the blood for comparison with that of the Manatee. It requires more than a superficial glance to detect a difference in size in the red corpuscles of the two animals. But in the *Beluga*, though the corpuscles are, without doubt, superior in size to those of any of the three cetaceans mentioned by my father, they are decidedly inferior to those of the Manatee. Their average diameter is $\frac{1}{2650}$ inch. The corpuscles of this cetacean, then, rank next in size amongst Mammalia to those

of *Manatus americanus*, those of the other Sirenia being, in all probability, also superior in size.

Though, perhaps, the size of the red corpuscles cannot, in our present imperfect state of knowledge, be said to throw much light on the affinities of the Sirenia, it would be nevertheless interesting to be able to add to the characters of the group that they possess very large red corpuscles, in all probability exceeding in size those of any other group of Mammalia.

XX.—*Note on Tethea muricata, Bowerbank.*

By H. J. CARTER, F.R.S. &c.

DURING the examination of the late Dr. Bowerbank's collection of sponges, now the property of the British Museum, I found the type specimen of his "*Tethea muricata*," and only noticing at the time that it was identical with *Wyvillethomsonia Wallichii*, Wright, merely attached this name to it.

Just now, however, I have received a little Arctic sponge from my old friend Dr. Dickie (late Prof. of Botany in the College at Aberdeen), with the following label, viz. "Lat. 75° 15' N., and long. 13° W."—that is, from the Greenland Sea,—and another by Dr. Bowerbank, to whom it had been submitted, viz. "*Tethea muricata*, Bow., MS. The type specimen is from Vigten Island, Norway, by Mr. M'Andrew."

Thus it struck me, when recognizing that it also was a specimen of *Wyvillethomsonia Wallichii* and the same as the type specimen *T. muricata*, which the late Mr. M'Andrew had obtained by dredging off Vigten Island, that the latter might have the priority in nomenclature; so I referred to Dr. Bowerbank's description and illustration of *Tethea muricata* (Proc. Zool. Soc. 1872, p. 115, pl. v. figs. 1–6), and there found that Mr. M'Andrew had presented it to Dr. Bowerbank in 1855, and that the latter had named and figured part of it in the 'Philosophical Transactions' for 1858, pl. 25. fig. 18, and again in 1862, pl. 31. figs. 14, 15. Further on in the description, viz. at page 117, Dr. Bowerbank states that Mr. Kent had described a "specimen of the same species" in the 'Monthly Microscopic Journal,' 1870, p. 293, under the designation of "*Dorvillia agariciformis*."

Under the name of "*Wyvillethomsonia Wallichii*" it was described and figured, from a very young specimen, by Dr. E. Perceval Wright (Quart. Journ. Microsc. Sci. January 1870, p. 7, pl. 11); but Mr. Kent's specimen, being older and much